



Indicators of Under/Overcount: A Report to the LA City Council Redistricting Commission



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Introduction

Every US Census has some amount of undercount and overcount. An overcount happens when a person is counted more than once, for instance, when a student is counted at their college and in their family home. Undercount occurs when a person is not counted at all, for example, when a person moves residences during the Census period.

This matters because under/overcounts impact redistricting outcomes and per capita-based federal spending. When district lines are redrawn, the principle of equal representation is threatened if an over- or undercount leads to some residents having relatively more or less political voice and resources.

Unfortunately, certain populations are consistently undercounted across Censuses while others are consistently overcounted. Undercounted populations, often referred to as hard-to-count populations, include young children, mobile populations, racial and ethnic minorities, non-English speakers, those experiencing homelessness, low-income persons, and those living in multifamily housing. Overcounted populations include White, more affluent populations that might own or live in one or more homes.¹ The LA City Council Redistricting Commission must adjust district populations for Census under/overcount so that every resident has the same access to federal dollars and political voice. Without these adjustments, traditionally marginalized populations in the City of LA risk further marginalization.

This report identifies indicators associated with 2020 Census under/overcount² and their geographic distribution within the City of Los Angeles for such adjustments. Top indicators associated with 2020 Census under/overcount are COVID-19 cases, homelessness, foreign-born populations, limited English proficiency, broadband internet access, poverty, racial/ethnic composition, and renter households. When these indicators are measured across the city, current Council Districts 1, 8, 9, and 13 are the districts most likely to be undercounted. These districts include South LA, downtown and the Westlake area, and parts just north and northeast of downtown. Current districts 4, 5, and 11 are most likely to be overcounted. Proposed districts 1, 8, and 9 are most likely to be undercounted and proposed districts 3, 5, and 11 are the most likely to be overcounted.

Identifying Under/Overcount

Indicators associated with under/overcount fall into four broad categories: (1) traditional socioeconomic status (SES) indicators used by federal, state, and local governments to estimate Census response rates or hard-to-count populations, (2) indicators used in local, state, and national pre- and post-enumeration surveys, (3) indicators specific to the 2020 Census context, and (4) indicators identified by Census outreach or enumeration (count) workers in the field. A fifth category, indicators collected by the City, will be analyzed by the City Redistricting Commission and are not included in this report.

¹ Neighborhood House, “The 2020 Census: The problem with undercounts,” <http://neighb.org/the-2020-census-the-problem-with-undercounts/>.

² There are slight differences in indicators associated undercount and those associated with Census response or participation. Because a lower response rate is likely to signal an undercount, we treat indicators of low response and undercount as one here.

Each category of indicators has some overlap with the others, but each brings a distinct value as well.

- **SES indicators.** SES indicators (and their indexes) represent the best thinking of Census experts to date to determine anticipated locations of low self-response or hard-to-count populations. These indicators point to *where* the Census might need to increase or vary outreach for a more accurate count.
- **Pre- and post-enumeration surveys.** Pre-enumeration surveys help planners determine who might or might not be inclined to respond to the Census. The results point to *how* the Census might need increased outreach for a more accurate count. Post-enumeration surveys directly tell planners *who* was under/overcounted.
- **Indicators specific to 2020.** Several important variables impacting the count of *this census*, e.g., COVID-19, were not foreseen by Census experts and were not included in SES indicators and pre-enumeration surveys. Post-enumeration surveys are only beginning to incorporate 2020-specific indicators.
- **Field-identified indicators.** Outreach and enumeration workers arguably have the most important role to play in conveying what actual residents said about filling out the Census in count and outreach operations, including why they chose to fill out the Census or not.
- **City-sourced indicators.** Certain Census indicators, such as the number of housing units and people of a certain age, are also collected by the city. Comparing these Census indicators to their city counterparts can indicate an under/overcount.

SES Indicators

Traditionally, Census planners have used indicators of SES to estimate under/overcount across censuses. The Hard-to-Count Score,³ prior to the 2010 Census,⁴ and Low-Response-Score,⁵ prior to the 2020 Census, used SES to influence planning on a national level. At the state level, the California Department of Finance adopted a state-specific Hard-to-Count Index⁶ for this last Census. Finally, local experts researched SES indicators to successfully account for under/overcount in past and current Censuses.^{7,8}

Key SES indicators across these efforts include indicators of income, (dis)connection based on citizenship or language, housing mobility or (in)stability, race, and household composition. We selected key domains and the indicators found most frequently across SES efforts or other indicator categories (see Table 1).

³ Hard-to-Count scores provide a high-level summary of how difficult enumeration is for a specific geography. A range of SES indicators are used in creating hard-to-count scores.

⁴ Antonio Bruce and J. Gregory Robinson, "Tract Level Planning Database with Census 2000 Data," (Washington, DC: US Department of Commerce, US Census Bureau, 2003).

⁵ Chandra Erdman and Nancy Bates, "The US Census Bureau Mail Return Rate Challenge: Crowdsourcing to Develop a Hard-to-Count Score," (Washington, DC: Center for Statistical Research & Methodology, Research and Methodology Directorate, US Census Bureau, 2014).

⁶ The California Department of Finance Demographic Research Unit, "Identifying California's Hard-to-Count in Census 2020," <https://census.ca.gov/california-htc/>.

⁷ Daniel Kikuo Ichinose, Leo F. Estrada, and J. Eugene Grigsby, "Estimating the Geographic Distribution of Undercounted Populations and Their Impact on the 2002 Los Angeles City Council Redistricting Process," (Los Angeles, CA: 2001).

⁸ Paul Ong and Jonathan Ong, "Potential Differential Undercount in 2020 Census Redistricting Data: Los Angeles County California," (2021).

Table 1. Selected Domains and Socioeconomic Status Indicators of Census Under/Overcount

Domain	Indicators Used
(Dis)connection based on citizenship or language	Foreign-born population (%), ^{a,d,e} Non-citizen population (%), ^a Limited-English households (%), ^{a,b,c,e}
Income/Earnings	Low-income or income below poverty (%), ^{a,b,c,d,e} Adults who are/are not high school graduates (%), ^{a,b,c} Unemployed (%), ^{a,b,c} Households receiving public assistance income (%), ^{a,b,c}
Household composition	Not husband-wife households (%), ^{a,b,e} Crowded households or multifamily households (%), ^{a,b,c,e} Households with young children (%), ^{a,c}
Housing mobility or (in)stability	Persons who moved in the past year (%), ^{a,c} Renter-occupied housing units (%), ^{a,b,c,d} Homeless population (%), ^a
Race or Ethnicity	White/non-White population (%), ^{c,e} Asian and Native Hawaiian/Pacific Islander (NHPI) populations (%), ^{a,b,e} African American population (%), ^{a,b,c,e} Latinx population (%), ^{a,b,c,e} American Indian/Alaska Native population (%), ^{a,b,e}

a = California Department of Finance Hard-to-Count indicator, 2020

b = US Census Bureau Hard-to-Count indicator, 2003

c = US Census Low-Response-Score, 2014

d = Paul Ong and Jonathan Ong, 2021

e = Ichinose, Estrada, and Grigsby, 2002

Pre- and Post-enumeration Survey Indicators

While some research has helped planners identify hard-to-count places before the Census, pre- and post-enumeration surveys, or surveys before and after Censuses, have identified expected sources of undercount and sources of undercount directly.

The 2020 Census Barriers, Attitudes, and Motivators Study Survey Report,⁹ the Census Bureau's largest pre-enumeration survey, identified populations that were more or less likely to know about or understand the Census as well as participate. Some key findings included:

- More educated householders were more familiar with the Census than less educated households;
- Older households were more familiar with the Census than younger households;
- Among racial groups, non-Hispanic Asians are least familiar with the Census;
- Among racial groups with familiarity, non-Hispanic Black/African Americans had the lowest levels of knowledge about the Census;

⁹ US Census Bureau, *2020 Census Barriers, Attitudes, and Motivators Study Survey Report: A New Design for the 21st Century*, (January 24, 2019).

- Non-White groups were more concerned about Census confidentiality, data sharing with other government agencies, and the possibility that their answers would be used against them than non-Hispanic Whites;
- Non-citizens and limited-English proficient residents were also worried about how their data would be used; and
- Respondents who are not internet proficient had lower levels of knowledge about the Census than respondents who are internet proficient.

According to post enumeration surveys, California has been undercounted in at least the last three Censuses, though with decreasing undercount over time. Results of 2020 post-enumeration surveys will not be available until after the redistricting process, but in past Censuses, the following indicators were found to be sources of under/overcount in California¹⁰:

- Non-Hispanic Black residents were undercounted by 2.07 percent;
- American Indians living on reservations were undercounted by 4.88 percent;
- Renters were undercounted by 1.09 percent; and
- Children ages 0–4 were undercounted by 0.72 percent and children ages 10–17 were overcounted by 0.97 percent.

Census 2020-specific Indicators

The 2020 Census was a census like no other, with a first-ever shift to internet self-response amidst a global pandemic and economic crisis. At the same time, anti-Asian hate, stoked during the pandemic, and anti-Black police violence gripped the country. Anti-immigrant policies proposed by the federal administration¹¹ had a chilling effect on undocumented immigrants and Middle Eastern/North Africans. The administration also kept changing deadlines to meet political ends, leaving many to think the Census had ended when it hadn't, or believing there was more time to fill out their form when there was not. These changes also impacted the ability of outreach organizations (and enumerators) to plan for and outreach to hard-to-count populations. California's housing crisis uniquely affected the count as well. Federal cutbacks further compounded the challenge of planning for the 2020 Census as the three, 2018 end-to-end testing sites were reduced to a single site due to underfunding. Providence, Rhode Island, became the only example for the rest of the nation, while sites selected to test rural districts, areas with Native American communities, and a major military base were cut. A unique set of SES indicators should be considered because of the exceptional circumstances surrounding this Census (see Table 2).

Table 2. Selected Indicators of Under/Overcount Unique to the 2020 Census

Indicator	Unique Impact on the 2020 Census
COVID-19 case rates	The 2020 Census was the first in memory to take place during a pandemic. COVID-19 caused sickness and death and widespread economic pain. Public health measures prevented organizers from reaching out to residents in person. Research has found

¹⁰ Mac Taylor, Legislative Analyst, "The 2020 Census: Potential Impacts on California," (LAO, December 13, 2018).

¹¹ Hansi Lo Wang, "Immigration Hard-Liner Files Reveal 40-Year Bid Behind Trump's Census Obsession," <https://www.npr.org/2021/02/15/967783477/immigration-hard-liner-files-reveal-40-year-bid-behind-trumps-census-obsession/>.

	relationships between high COVID-19 rates and hard-to-count population ¹² and low Census self-response rates. ¹³
Households without broadband subscription	The 2020 Census was the first where the primary method of self-response was over the internet. Households without internet access, or residents who are not internet proficient, could be at a distinct disadvantage in learning about and filling out the survey. The state's digital divide was thought to be a potential impediment to an accurate count and LA County response rates were lowest in census tracts where the top hard-to-count characteristic was lack of broadband internet subscription. ¹⁴
Housing instability	Housing conditions were thought to be a key challenge to a complete count because of wildfire displacement and increases in homelessness. Rental and mobile homes are less likely to appear on official census lists, as are households living in overcrowded or multifamily homes. ¹⁵
Non-citizens and mixed-status households	The uncertainty of whether a citizenship question would be on the Census and whether it would be used to deport undocumented immigrants was thought to depress participation among non-citizens and mixed status families. Census evaluations showed that immigrant populations did not participate in the Census because of mistrust of government and uncertainty of immigration rules. ¹⁶

Field-identified Indicators

In addition to socioeconomic status indicators and pre- and post-enumeration surveys, interviews of outreach workers and evaluations of outreach programs can tell us about barriers to enumeration. Three sources of interviews and evaluations come from the People's Bloc, the We Count LA table, and the California Complete Count Census Campaign.

The People's Bloc is a multiracial coalition dedicated to the inclusion of everyday residents, conducting public education, and proposing solutions to the redistricting process that promote the political voice, representation, and access to resources for historically underrepresented groups.¹⁷ People's Bloc members conducted Census outreach in LA County for months before and after the release of the Census questionnaire. Indicators of undercount were identified in interviews with outreach workers from the following organizations: Asian Pacific Policy and Planning Council (A3PCON, Asian Americans Advancing Justice —Asian Law Caucus), Black Women for Wellness, Community

¹² Paul Ong and Jonathan Ong, "Persistent Shortfalls and Racial/Class Disparities: 2020 Census Self Response Rates," (August 18, 2020), http://www.aasc.ucla.edu/resources/policyreports/COVID19_CensusUpdate_CNK_AASC.pdf.

¹³ Laura Daly, "Mapping the Hardest to Count Census Tracts," <https://www.advancementprojectca.org/tools-we-use/maps-and-data/census-2020>.

¹⁴ Alejandra Ramirez-Zarate and Laura Daly, *Los Angeles Countywide Response Rate Report*.

¹⁵ Sarah Bohn et al., *Counting California: Challenges for the 2020 Census*. (Public Policy Institute of California, March 2020).

¹⁶ SocialQuest, Inc., "Census 2020 Campaign: Final Measurement Report: California's 15 Hardest-to-Count Populations," Prepared for the California Complete Count Office, (December 2020).

¹⁷ The People's Bloc, <https://www.thepeoplesbloc.org/>.

Coalition, InnerCity Struggle, Latino Equality Alliance, Long Beach Forward, and The Community Action League.

The We Count LA table was an organizing body of the People’s Bloc and other outreach organizations in LA County. The California Community Foundation, Engage R+D, and the USC Equity Research Institute evaluated Census 2020 outreach to support future Census efforts.¹⁸

The California Complete Count Census Campaign was the State’s effort to educate, motivate, and activate Californians to respond to the Census, relying heavily on grassroots messaging and outreach to those least likely to fill out their Census form. LPC Consulting Associates, Inc. evaluated the effort, including important questions on who did or did not participate in the Census and why.¹⁹

The People’s Bloc, the We Count LA table, and the California Complete Count Census Campaign uplifted several indicators related to Census under/overcount (see Table 3). Specifically, they called out Asian American/Pacific Islander (AAPI) communities and unemployed and renter households affected by COVID-19; foreign-born and non-citizen populations including Middle Eastern/North African populations affected by federal policies; and limited-English and households without broadband internet affected by weakness in outreach.

Table 3. Selected Indicators of Undercount Reported by Census Outreach Workers

COVID-19 cases, AAPI communities (%)	AAPI communities were disproportionately impacted by COVID-19, and outreach is hard to do for these communities since many are spread geographically. ^{a,b}
Foreign-born and non-citizens (%)	Multiple organizations working in different parts of LA reported hesitancy of non-citizens to fill out the Census for fear of deportation. Additionally, many text-banking platforms used for outreach are based on registered voters, excluding non-citizens. ^{a,b}
Homeless population (%)	Outreach workers found this population difficult to find. There were reports of homeless individuals avoiding shelters for fear of COVID-19. This population could not easily be reached via digital marketing. ^{a,c}
Households without broadband internet (%)	Households who were not used to using a web-interface had trouble filling out the Census. Field workers reported that the Census helpline discouraged some of those folks from filling out the form. ^{a,c}
Limited-English households (%)	The Census online form was only available in twelve, non-English languages, and a paper questionnaire in only English and Spanish. Many text banking platforms used for outreach have limited language options (e.g., no Khmer). ^{a,b}
Middle Eastern/North African (%)	People of Middle Eastern/North African descent were less likely to participate because of the federal administration’s anti-Muslim policies and travel ban. ^{a,b}
Renter Households (%)	Outreach workers reported difficulties accessing apartment buildings

¹⁸ California Community Foundation, Engage R+D, USC Equity Research Institute, “When it Counts: An Evaluation of the 2020,” (We Count LA Campaign, August 2021).

¹⁹ LPC Consulting Associates Inc., *Evaluating the California Complete Count Census 2020: Campaign: A Narrative Report*, (April 14, 2021), https://census.ca.gov/wp-content/uploads/sites/4/2021/04/EvaluatingTheCACompleteCountCensus2020Campaign_ANarrativeReport.pdf.

	in dense, low-income neighborhoods where COVID-19 was a concern. a,c
Unemployed (%)	Outreach workers found households without employment were focused on financial matters and did not have the time to fill out the Census. ^a

Source: a = People's Bloc, b = We Count LA, c = California Complete Count

Recommended Indicators

There are numerous indicators related to Census 2020 undercount from previous studies, pre- and post-enumeration surveys, and outreach interviews and evaluations. However, we can identify indicators found across these categories and recommend indicators to use in adjusting for under/overcount (see Table 4).

Table 4. Recommended Indicators by Category

Indicator	SES Studies	Pre- and Post-Enumeration	Specific to the 2020 Census	Field Evidence
Broadband Internet	X	X	X	X
COVID-19 cases			X	X
Foreign-born	X	X	X	X
Homelessness	X		X	X
Limited-English	X	X		X
Poverty	X			X
Race/Ethnicity	X	X		X
Renter Households	X	X	X	X

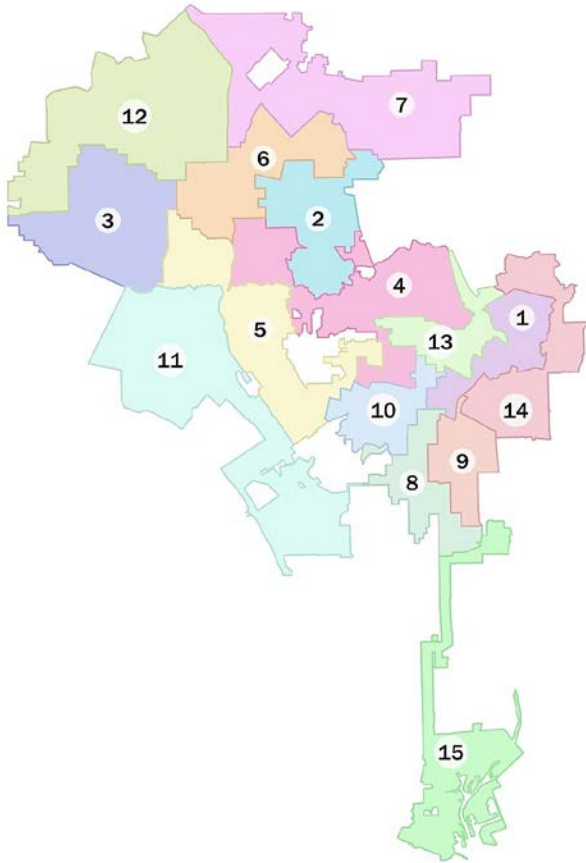
- COVID-19 cases.** The single biggest influence on life during the Census, COVID-19 is responsible for previously unimaginable loss of life and economic devastation. Traditional Census and outreach strategies for hard-to-count populations were closed. Paul Ong and Jonathan Ong, and Laura Daly found linkages between higher COVID-19 case rates and lower self-response, and Census outreach individuals repeatedly reported individuals more concerned with COVID-19 than filling out the Census. While COVID-19 cases themselves are not in previous SES or pre- and post-enumeration studies, pandemic-driven unemployment and household mobility are consistently in them.
- Homelessness.** Homeless populations, a traditionally hard-to-count indicator in SES studies, were particularly hard to track in the 2020 Census. Homeless individuals were already at a disadvantage compared to residents with broadband internet access, but the pandemic kept many away from shelters where they could be counted in a homeless count. Partners reported not being able to coordinate with the Census or get information on whether homeless or group quarters counts had taken place. A surge in homelessness due to the housing crisis may have also increased the chances of being uncouned.
- Foreign-born population.** This indicator is meant to capture the non-citizen population that was undercounted because of mistrust of government and fear of deportation *and* the larger foreign-born population that was likely undercounted due to insufficient outreach. Another traditionally hard-to-count indicator, multiple organizations working in different parts of LA

reported hesitancy of non-citizens to fill out the Census for fear of deportation. Many text-banking platforms used for outreach are based on registered voters, excluding non-citizens.

- **Limited-English population.** This hard-to-count population overlaps with the foreign-born population but has additional limitations in this Census. The Census online form was only available in twelve, non-English languages, and a paper questionnaire in only English and Spanish. Many text banking platforms used for outreach also have limited language options (e.g., no Khmer).
- **Broadband internet.** This hard-to-count population indicator is meant to cover both households without internet access as well as households with limited internet proficiency that are less likely to have heard of the Census or may have struggled to fill out the form. Outreach workers reported that households without internet access were at a distinct disadvantage in learning about and filling out the first digital Census.
- **Poverty.** This traditional, hard-to-count indicator includes people who overlap with many other hard-to-count indicators, such as renter population, overcrowded households, and limited-English households. Outreach workers reported difficulties accessing apartment buildings in dense, low-income neighborhoods where COVID-19 was a concern.
- **Race.** Overlapping with multiple other indicators, partners reported that Latinx residents were more hesitant to participate in the Census for fear of deportation. Partners reported that Asian experiences of anti-Asian sentiment might dampen Census participation. They also reported lower Pacific Islander participation because of the disproportionate impact of the pandemic on this population. Census evaluators reported barriers to American Indian or Alaska Native (AIAN) outreach due to pandemic-related closures of tribal lands.
- **Renter population.** This traditional hard-to-count indicator serves as a proxy for many aspects of housing instability, including non-husband-wife and crowded units. Partners reported that multi-unit housing, which are more commonly rented, at times barred Census enumerators or outreach workers from their properties.

Geographic Impact of Under/Overcount - Current City Council Districts

We analyzed each of these recommended indicators and found each indicator varies geographically across the City of Los Angeles. We identified the three districts with the highest likelihood of undercount for each indicator, except for White, which is associated with overcount (see Map 1 and Table 5).

Map 1. Current City Council District Map**Table 5. Current City Council Districts with Highest Likelihood of Undercount by Indicator**

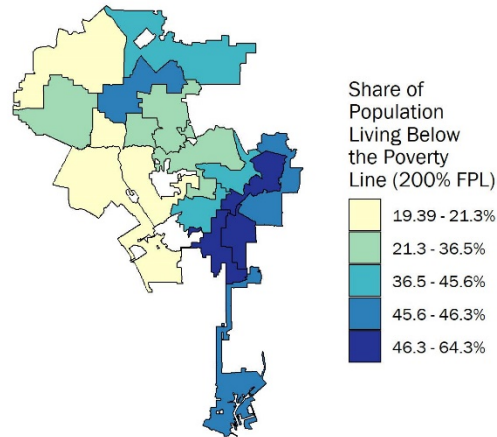
Indicator	Top Quintile City Council Districts
Broadband Internet	1, 8, 9
COVID cases	8, 9, 14
Foreign-born	1, 6, 13
Homelessness	8, 13, 14
Limited-English	1, 6, 9
Poverty	1, 8, 9
Race - AIAN	1, 14, 15
Race - Black	8, 9, 10
Race - Asian	1, 12, 13
Ethnicity - Latinx	6, 7, 9
Race - NHPI	4, 13, 15
Race – White*	4, 5, 11
Renter	1, 10, 13

*White is highest likelihood of overcount

By sheer number of indicators, current City Council Districts 1 (seven indicators), 9 (six indicators), 13 (five indicators), and 8 (five indicators) are the districts most likely to be undercounted. These districts include South LA, downtown and the Westlake area, and parts just north and northeast of downtown.

Current districts 4, 5, and 11 are most likely to be overcounted based on their percentage of their White population.

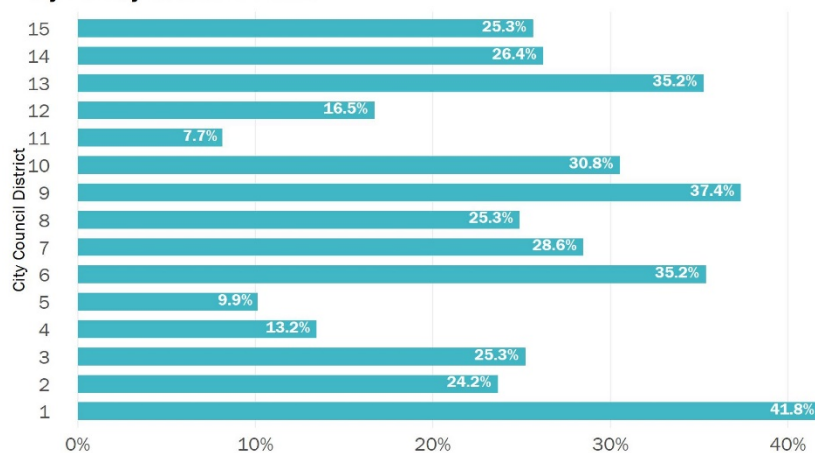
Map 2. Share of Population Living Below the Poverty Line (200% FPL) by LA City Council District



Data Source: American Community Survey 5-Year Estimates (2015-2019).

A map of the poverty indicator illustrates this general pattern (see Map 2).²⁰ The three districts with the highest (top quintile) poverty rates are districts 1, 8, and 9. A chart of the limited-English proficiency indicator (see Chart 1) shows just how different rates are across council districts. In this case, current districts 1, 6, 9, and 13 have limited-English proficiency rates at least twice as high as districts 4, 5, 11, and 12. The former were much more likely to be undercounted based on outreach issues reported by the Census and outreach partners.

Chart 1. Limited English Proficient Population (%) by LA City Council District



Data Source: American Community Survey 5-Year Estimates (2015-2019).

²⁰ Note: raw data, maps, and charts of all recommended indicators are in companion files to this brief.

Geographic Impact of Under/Overcount—Proposed City Council Districts

The City Redistricting Commission proposed new boundaries (see Map 3). We conducted the same geographic analysis for the proposed boundaries as the current boundaries. The results are in Table 6.

Map 3. Proposed City Council District Map

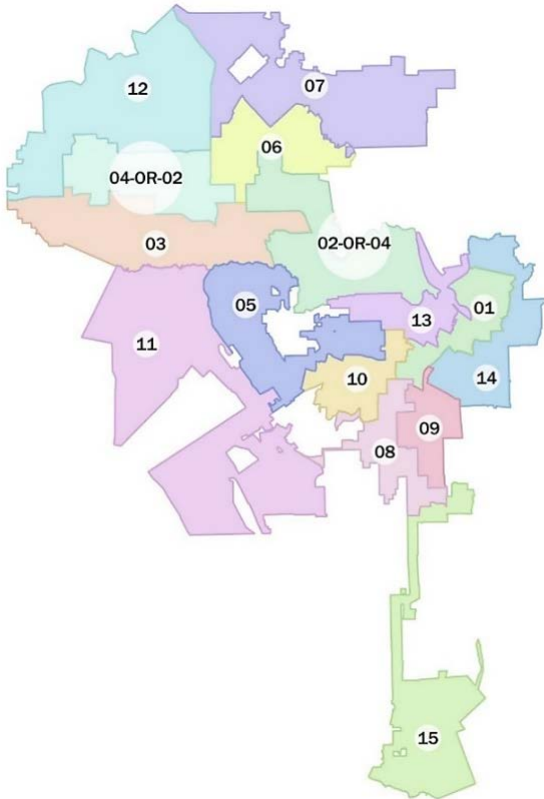


Table 6. Proposed City Council Districts with Highest Likelihood of Undercount by Indicator

Indicator	Top Quintile City Council Districts
Broadband Internet	1,8,9
COVID cases	8,9,14
Foreign-born	1, 4-or-2, 6
Homelessness	8,13,14
Limited-English	1,6,9
Poverty	1,8,9
Race - AIAN	1,14,15
Race - Black	8,9,10
Race - Asian	5,10,12
Race - Latinx	6,7,9
Race - NHPI	5,13,15
Race – White*	3,5,11
Renter	1,10,13

*White is highest likelihood of overcount

By sheer number of indicators, proposed City Council Districts 1 (six indicators), 9 (six indicators), and 8 (five indicators) are the districts most likely to be undercounted. These districts include parts of South LA, downtown, and areas west and northeast of downtown. Current districts 3, 5, and 11 are most likely to be overcounted based on their percentage of the White population.

Conclusion

Every US Census has some amount of under/overcount that impacts redistricting outcomes. Because certain populations are consistently undercounted across Censuses, it is imperative that the LA City Council Redistricting Commission adjust district populations for Census under/overcount so that every resident has the same access to federal dollars and political voice.

This brief identifies four categories of undercount indicators and recommends the following indicators to adjust for under/overcount: COVID-19 cases, homelessness, foreign-born populations, limited English proficiency, broadband internet access, poverty, racial/ethnic composition, and renter households. These indicators are most likely to represent undercount in current Council Districts 1, 8, 9, and 13. These districts include South LA, downtown and the Westlake area, and parts just north and northeast of downtown. Current districts 4, 5, and 11 are most likely to be overcounted. Proposed districts 1, 8, and 9 are most likely to be undercounted and proposed districts 3, 5, and 11 are the most likely to be overcounted.

We are grateful to be able to give these recommendations to the City Redistricting Commission and look forward to seeing the results of the Commission's work.

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